

CENTRAL STERILE REPROCESSING DIVISION

STANDARD OPERATING PROCEDURES

500 BED FLEET HOSPITAL

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500 BED FLEET HOSPITAL

STANDARD OPERATING PROCEDURE

CENTRAL STERILE REPROCESSING DIVISION

A. **MISSION:** Provide required sterile supplies to the operating room suite and other patient care areas.

B. **FUNCTIONS:**

1. Collection of contaminated equipment/supplies/linens.
2. Cleaning/decontamination.
3. Sterile reprocessing.
4. Sterile storage.
5. Re-issue of equipment and supplies.

C. **PHYSICAL DESCRIPTION OF FUNCTIONAL AREA:**

1. C.S.R.
 - (a) Sheltering.
Type: Hardball Shelters and TEMPER Tents.
Quantity: Three 2:1 ISO Shelters and eleven Temper Sections, shared with operating room.

D. **SPECIAL CONSIDERATIONS/HAZARDS:**

1. There is limited sterilizing capability.
 - (a) Two field sterilizers (16" diameter by 36" long) are located in 2:1 ISO for a total of 6.
 - (b) One small sterilizer in the lab to support laboratory requirements.
 - (c) One still in CSR Support Module to produce distilled water.
2. All sterilizers are steam-fired, field-types that operate on electricity or fossil fuel burners.
3. Each CSR Module serves a designated purpose.
 - (a) CSR Module 1 is for decontamination for operating room.

- (b) CSR Module 2 is for wrapping instruments for the operating room.
- (c) CSR Support Module supports all other hospital areas.
- 4. The ultrasonic cleaner is reserved for cleaning small delicate instruments and secondarily for other types of instruments.
- 4. Priorities for use of distilled water are:
 - (a) Primary - Irrigation fluids for patients and rinse water for ultrasonic cleaner.
 - (b) Secondary - Feed water for sterilizers.
- 6. Movement of supplies.
 - (a) All contaminated used OR instruments will be taken to decontamination CSR Module by OR Tech.
 - (b) All supplies for other hospital areas will be delivered and picked up by the using department.
- 7. CSR is responsible for:
 - (a) Sterilizing all trays, towels, linens.
 - (b) Cleaning portable suction machines and installing tubing.
 - (c) Storing sterile supplies for the OR in the Operating Room Support Area. Other sterile supplies will be stored in the user's area.

E. DEPARTMENT ORGANIZATIONAL CHART:

- 1. Responsibility. Supervisor of Central Sterile Reprocessing Division who reports to the Head, Surgical Services, is assigned overall management responsibility. The division is divided into two branches, two CSR Modules and one CSR Support Module.

F. JOB DESCRIPTIONS:

- 1. Supervisory Nurse Consultant:
Provides guidance, consultation, and leadership for CSR staff members in matters of decontamination, sterilization, processing and distribution, staff issues, unit management, quality assurance records, and efficiency of service.
- 2. Surgical Technologist:
Is knowledgeable in running all sterilizers and the proper documentation and record keeping. Is aware of proper techniques in storing all sterilized items. Is knowledgeable in issuing sterilized items and proper accounting for each item. Is knowledgeable of packs, trays, instrumentation, and supplies used to set up instrument sets for sterilization.

G. WORKLOAD:

1. Variable.

(a) CSR will be operational 24 hours/day.

(b) All items will be resterilized for use within 24 hours or less.

2. Inventory levels to be maintained:

(a) Two-day inventory of assembled sterile trays, towels, and linens for steady state (108 cases).

(b) One-day inventory of assembled unsterile trays, towels, and linens.

(c) One-day inventory of supplies.

H. TASKS – Unique To The Field Environment:

1. COLLECT/RECEIVE CONTAMINATED ITEMS=

1.1 All contaminated items to be resterilized will be sent to CSR.

Procedures will vary according to the source of the item and are as follows:

1.1.A Operating Room contaminated items.

- OR Techs/HMs will take all used contaminated items from the OR to Decontamination CSR.
- Label and set aside damaged items on wire cart to be handled IAW the SOP for repair procedures, TAB C-1.
- Rinse instruments with cold water.

1.1.B Contaminated items from other hospital areas.

- The using department will take items from other hospital areas to the CSR Support Module.
- The Collection/Reissue HM in the CSR Support Module will receive all items.
- Pull Custody Card/Inventory Lists for instrument trays loaned from CSR to other hospital areas.
- Jointly inventory the tray with person returning the tray/equipment.
 - Note any missing items.
 - Record and set aside any damaged item IAW the SOP for repair procedures, TAB C-1.

- Both persons will sign the Custody Card /Inventory List.

1.2 Separation of contaminated items.

1.2.A Further separate all items using wire carts.

- Place sharp instruments together.
- Bag and label linens to be sent to the laundry.
- Dispose of used needles, syringes, and blades IAW SOP on sharp item precautions, TAB C-2.
- Place trash in waste receptacle.
- Place minor equipment to be cleaned and tested in a separate cart outside CSR Modules. Examples of equipment are: K-pads, humidifiers, suction machines.

2. CLEAN CONTAMINATED ITEMS

2.1 Using work table and the sink area of the Decontamination CSR Module, the Decontamination HM prepares the items for cleaning. Steps include sorting, soaking, washing, rinsing, and drying.

2.1.A Soaking.

- Scrub all items and then soak in the soak tank using a germicidal disinfectant prior to final cleaning.
- Disassemble instruments as needed.
- Follow the germicidal guidelines for the proper solution, strength and time of exposure.
- Soak all items for a minimum of 15 minutes.
- Change the soaking solution after every 5 surgical trays. Must clean soak tank before refilling.

2.1.B Washing.

- Wash small, delicate instruments IAW the SOP on ultrasonic cleaner, TAB C-3.
- Wash minor CSR equipment IAW the SOP "Maintenance and Cleaning of CSR Equipment", TAB C-4.
- For all other equipment and supplies:

- Use low-sudsing, free rinsing detergent with a ph of 7.0-8.5 for cleaning. Follow the directions on the container for proper mixing.
- Put the detergent solution in a basin and change after every 5 major trays.

2.1.C Rinsing.

- Rinse cleaned items in two successive baths of water.
- Use distilled water to rinse instruments after ultrasonic cleaning to prevent corrosion

2.1.D Drying.

- Allow all items to air dry. Spread out instruments on towel like surface. Hand dry basin like devices. Place items on clean trays on wire carts ready for repackaging.

2.2 Autoclaving of equipment: Due to limited autoclave capability, terminal sterilization of instruments prior to packaging is nearly impossible. However, autoclaving is the method of choice for initial decontamination.

3. PROCESS STERILE ITEMS

3.1 Clean the workspace at the beginning of each watch by wiping down worktables and shelves with 70% alcohol.

3.2 Prepare items for sterilizing.

3.2.A Assemble all equipment, supplies, and linens needed for packaging and sterilizing.

- Use fresh laundered linen that will be delivered daily by laundry personnel and stored in each packaging CSR Module on a wire cart near the autoclaves.
- Obtain assembly cards for individual instrument sets. See Tab C-6; enclosure A.
- Obtain sterilizer supplies.
- Metal perforated trays.
- Wrappers – Muslin linen, double thickness, 140-thread count.
- Linens, assorted sizes.
- Gauze - 2x2 and 4x4 sizes.

- Chemical indicator strips.
- Pressure sensitive autoclave indicator tape.
- Autoclave daily record sheet.
- Label gun.
- Roll of plastic for dust covers.

3.2.B Preliminary preparation of items for trays

- Prepare rubber goods IAW SOP on "Rubber Goods" TAB C-5.
- Assemble instrument trays IAW the SOP on "Instrument Tray Assembly", TAB C-6.
- Package linens and trays IAW the SOP on "Packaging", Tab C-7.

3.3 Prepare the sterilization load records. All items must be carefully labeled and records maintained to rapidly identify contaminated packages in the event of sterilizer malfunction.

3.3.A Prepare a label for each item to be sterilized in a load.

- Use a label gun, if available.
- Label format.
 - First line: First 3 digits = Julianne date, next digit = sterilizer number, last 2 digits = cycle numbers.
 - Second line: Expiration date - month, day, year.
- Affix label to each package in a load.
 - Place peel pack label on plastic side of package.
 - Place all other labels on autoclave tape on outer package.

3.3.B Prepare a label for autoclave daily record and place in proper location for labels on form.

3.3.C Record on Autoclave Daily Record.

- Under contents of load:
 - List contents of each load, i.e. gowns, linen packs, instruments, R.T. tubing, etc.
- Under department column:
 - Indicate department to which the contents belong.

3.4 Sterilize items.

3.4.A Run autoclave test load in each autoclave IAW the SOP on "Monitoring Steam Sterilizers", TAB C-8.

- Specifically the CSR Sterile Processing Tech will:
 - Conduct a biological spore test weekly of each autoclave in first load on a.m. watch.
 - Run a test load with two biological spore capsules and one chemical strip in package.
- Record all results in CSR Sterilizer Log and on the Autoclave Daily Record.
- Report any malfunctions, abnormal chemical indicator results or positive spore tests, immediately, to the CSR Supervisor and follow the SOP on "Monitoring Steam Sterilizers", TAB C-8, for further actions.
- If test load is acceptable, prepare autoclave for sterilizing.

3.4.B Load autoclave IAW the SOP, "Loading of Autoclave", TAB C-9.

3.4.C Operate the autoclave IAW the Instruction Manual for Field Sterilizer Model 6530-00-926-2151. The operating manual will be located in each CSR Module next to the sterilizers.

Special Notes:

- Fill jacket with water (distilled water preferred). Check water gauge before every cycle and fill water level to at least the 1/4 mark.
- Check jacket steam pressure.
 - 250 degrees F requires 18-20 psi.
 - 270 degrees F requires 27-32 psi.
- Preheat 10-15 minutes to allow pressure to stabilize.
- Autoclave cannot be operated until door has been properly secured.

- Allow chamber to fill with steam and build to desired pressure. When desired chamber temperature is attained, begin timing the exposure period.

Standard Exposure Times:

- 10 minutes at 270 degrees F or higher for equipment/instrument tray loads.
- 30 minutes at 250 degrees F for fabric and solution loads.
- 3 minutes at 270 degrees F to flash clave a single instrument for an emergency.
- At end of exposure period turn operating valve to:
 - "Fast Exhaust" for fabric or instrument loads.
 - "Slow exhaust" for solution loads.
- When the pressure gauge reads zero, the cycle is complete. Open the door 6 inches to vent the steam.
- Allow contents to cool for 15 minutes before removing to reduce the possibility of condensation in sterile packs.

3.5 Make entries in Autoclave Daily Record.

3.5.A At time sterilization process began log and initial:

- Time.
- Temperature.
- Pressure reading.

3.5.B At time sterilization process ended log and initial:

- Time.
- Total length of sterilization
- Temperature.
- Pressure.
- Unsatisfactory autoclave tape reading.

4. STORE STERILIZED ITEMS

4.1 Cool and dry items from autoclave

4.1.A Remove items from autoclave and air dry on wire carts near autoclave.

4.1.B Open test pack and read indicators.

- Record the chemical indicator strip result in the CSR Sterilization Log.

- Place the chemical indicator strip on the Autoclave daily record.
 - Incubate the Attest Biological in the incubator. Read results after 3 hours and record in Sterilization Log
- 4.2 Place dust covers on sterile packages that are likely to be on the shelf twenty-eight days or longer.
- 4.2A Cut off enough plastic from the roll to adequately cover the package.
- 4.2.B Seal ends of plastic wrap with a heat sealer.
- 4.2.C Place label on dust cover with expiration date 6 months from processing date.
- 4.3 Place completed packages on worktable to be reissued.
5. REISSUE STERILIZED ITEMS
- 5.1 Reissue procedures for sterile supplies will vary for the Operating Room and other hospital areas as follows:
- 5.1.A Operating Room sterile supplies:
- The CSR collection HM will place all sterile items on clean storage wire carts in the Operating Room support space.
 - The carts will be labeled "OR 1" and "OR 2 Sterile Supplies".
 - Place items on left side of shelf with oldest item in front.
- 5.1.B Other sterile supplies.
- The collection/reissue HM in the CSR Support Module will issue sterile items and obtain receipt for same.
 - Sterile items will be stored in the using departments.
6. CHEMICALLY DISINFECT SPECIAL ITEMS
- 6.1 Chemically disinfect items when they cannot undergo steam autoclaving.
- 6.2 Perform chemical disinfection IAW the SOP "Cold Chemical High Level Disinfection", TAB C-10.

7. MAINTAIN AUTOCLAVES/MINOR EQUIPMENT
 - 7.1 Routinely conduct maintenance checks of CSR equipment.
 - 7.2 Monitor autoclaves IAW the SOP "Monitoring Steam Sterilizers", TAB C-8.
 - 7.3 Maintain and clean CSR minor equipment IAW the SOP "Maintenance and Cleaning of CSR Equipment", TAB C-4.
 - 7.4 CSR Supply Technologist will maintain the maintenance logbooks.
8. PERFORM HOUSEKEEPING DUTIES
 - 8.1 Perform daily and weekly disinfection and cleaning duties IAW the guidelines "CSR Cleaning Schedule", TAB E-5.
 - 8.2 Personnel assigned to each CSR Module will clean the module.
 - 8.3 CSR Collection HM will clean the Operating Room support space.
 - 8.4 The CSR Supply Technologist will order the cleaning supplies and keep the CSR clean, and storage areas orderly.
9. MAINTAIN INSTRUMENT ASSEMBLY CARD TRAY
 - 9.1 Maintain instrument tray assembly cards lists in each CSR Module.
 - 9.2 Review the list of items quarterly to ensure that proper instruments/supplies are included.
 - 9.2 A CSR Supervisor reviews assembly cards with Medical Corps specialist for a particular tray.
 - 9.2 B Changes to instrument trays must be approved by the surgeon in the specialty.
 - 9.3 CSR Supervisor immediately revises the assembly cards whenever an item is recalled.
 - 9.3.A Notifies user of instrument tray about the recall of an item.
10. MAINTAIN CSR SUPPLIES
 - 10.1 Provide sufficient quantities of supplies/linens in CSR to process Sterile packs without interruption.
 - 10.2. CSR Supply Technologist is responsible for:
 - 10.2.A Ordering supplies.
 - Order linens from Laundry Department Form #FHCZ 1301,

Request for Clean Linen/Laundry.

- Order medical/administration supplies from Materials Management Department on Form #FHCZ 1001, Daily Conreq for HVMC Items.
- Order non-stock items directly from Material Management Department on form #DD-1348-6, Non-NSN Requisition.

10.3 CSR Supply Technologist will:

10.3.A Replace defective instruments/items from instrument trays.

- Restock items from storage cart within Operating Room Support Space.

10.2.B Restock sterile supplies to the left on storage shelves so that oldest item is used first thus minimizing reprocessing of outdated packages.

11. RECALL CSR SUPPLIES IN SPECIAL CIRCUMSTANCES

11.1 CSR items will be recalled if there is a positive autoclave spore test, expiration date has passed, or a product recall is ordered.

11.2 Recall items resulting from a positive spore test or expiration IAW the SOP "Recall of sterile Items", TAB C-11.

TAB C

STANDARD OPERATING PROCEDURES INDEX

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TAB C-1

CSR REPAIR PROCEDURES

A. **PURPOSE:** To facilitate the inspection and repair of medical equipment and facilities.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Labels/tags.
2. Medical/Dental Maintenance Order, NAVMED 6700/4.
3. Custody cards.
4. CSR Equipment Materials Log.
5. Sterilizer Maintenance Log.
6. Wire cart.
7. Metal trays.

D. **CRITERIA:**

1. Medical Repair will inspect an autoclave within one hour of receipt of notification of malfunction.
2. Autoclave gauges will be calibrated at least annually.
3. Instruments/equipment sent to Medical Repair will be clean/decontaminated.
4. If necessary, CSR Collection HM will make rounds to Medical Repair twice during the A.M. watch and once at the end of the night watch to deliver and pick up equipment.
5. Minor equipment will be inspected and repaired within 48 hours if all repair parts are available.

E. **STEPS:**

1. General repair of defective items.
 - (a) CSR Decontamination Technologist will:

- (1) Clean/disinfect all CSR items/minor equipment.
- (2) Inspect all items for defects.
- (3) Place defective items within CSR Modules on tray/shelf of wire cart labeled for Medical Repair.
- (4) Tag minor equipment outside CSR module for Medical Repair.
- (5) Record defective item on custody card/inventory list.

(b) CSR Collection Technologist will:

- (1) Collect defective items on rounds at least twice on A.M. watch and once on night watch.
- (2) Log items in CSR Equipment/Materials Log maintained by CSR Supply Technologist in Operating Room support space.
 - a) Log entry will include name of item, control number, nature of problem, date turned in, using department, and initials.
- (3) Complete a Medical Repair Work Order (NAVMED 6700/4) for each item. To include the following information:
 - a) nature of problem.
 - b) location.
- (4) Deliver defective items/minor equipment to Medical Repair division with work order retaining one copy for general files.
- (4) Pick up repaired CSR items/minor equipment.
- (5) Log items in CSR Equipment/Materials Log with CSR Supply Technologist.
 - a) Log entry should include date returned, reason not repaired if unable to repair, and initials.
- (6) Deliver repaired items to appropriate CSR Module for resterilization.

2. Maintenance/repair of autoclaves.

- (a) CSR Supply Technologist performs routine maintenance checks of autoclaves.
 - 1) Monitors that entries were made in Sterilizer logs for 6 month gauge calibration checks.

2) Monitors that entries were made in Sterilizer Logs for quarterly maintenance inspections.

(b) Emergency repair of steam autoclaves.

1) The CSR Supply Technologist must notify Medical Repair and the OR Supervisor of all autoclave malfunctions immediately. Call Medical Repair and describe the problem.

2) Note the following in the CSR Daily Log:

a. Sterilizer number and problem.

b. Time/date Medical Repair Department was called.

c. Time/date Medical Repair Department responded to call.

d. Time/date sterilizer was fully operational.

3. Repair of non-medical items.

(a) Emergency repair.

1) Call Public Works and provide the following:

a. Nature of problem.

b. Location.

c. Point of contact.

2) Make appropriate Departmental Log entry. Include work order number.

(b) Routine repair.

1) Prepare NAVMED 6700/4 in duplicate for each defective item.

2) Deliver original to Public Works; retain copy in general files.

F. RESPONSIBILITY:

1. CSR Supply Technologist for all log entries.

2. CSR Collection Technologist for pick up/delivery of CSR equipment.

TAB C-2

SHARP ITEM PRECAUTIONS

A. **PURPOSE:** To dispose of used needles and knife blades in a safe manner. To prevent injury and potential risk of contacting hepatitis, syphilis, malaria, aspergillosis, or AIDS.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Needle rack.
2. Perforated stainless steel box.
3. Needle holder.

D. **CRITERIA:**

1. Needles are never discarded loose in trash receptacles.
2. Knife blades are always removed from handles before reprocessing.
3. Sharp objects must be enclosed and secured so they cannot perforate the receptacle.

E. **STEPS:**

1. Upon completion of surgical case, the Surgical Technologist will:
 - (a) Separate sharp objects from other instruments.
 - (b) Remove knife blades from handles.
 - (c) Place reusable surgical needles, either on needle rack or loose, into a perforated stainless steel box.
 - (d) Dispose of needles in a needle-destruction unit.
2. CSR Decontamination Technologist will:
 - (a) Remove any blades/needles from non-operating room departments in the same manner as the Surgical Technologist.
 - (b) Run reusable needles, placed in a perforated stainless steel box through the washer-sterilizer.

3. CSR Collection Technologist will:
 - (a) Collect needle destruction units every watch and empty contents into a firm, self-closing box with padded adhesive tape to secure the opening.
 - (b) Collect the firm, self-closing boxes located in operating room support space that contain used knife blades.
 - (c) Take the sealed, labeled contaminated boxes to Environmental Health Department for final disposition.
4. If accidentally puncture/cut finger with contaminated needle/knife blade, do the following:
 - (a) Notify OR Supervisor.
 - (b) Report to Specialty Treatment Area for first aid.
 - (c) Complete an incident report on NAVMED 6010/14form.

F. **RESPONSIBILITY:**

1. OR Technologists.
2. CSR Technologists.
3. Environmental Health Department.

TAB C-3

ULTRASONIC CLEANER

A. **PURPOSE:** To clean delicate instruments or instruments with small parts that cannot be adequately cleaned using detergent and a scrub-brush.

B. **DEFINITION:** Ultrasonic cleaning is a technique in which high frequency sounds are converted into mechanical vibrations which loosen debris from crevices and cracks. The high frequency energy causes microscopic bubbles to form on the surface of the instrument, minute vacuums to be created, and as they explode, debris to be drawn out.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Ultrasonic cleaner.
2. Detergent, sonic.
3. Water soluble lubricant.
4. Milk bath tray.
5. Linens.

D. **CRITERIA:**

An ultrasonic cleaner will remove approximately 90% of debris.

E. **STEPS:**

1. Decontaminate instruments before cleaning. Use a soft brush and germicidal detergent to clean rachets, serrations and box locks. Do not scratch the finish or crack the instrument.
2. Place instruments in wire basket or instrument tray for ultrasonic cleaner.
3. Prepare the ultrasonic cleaner.
 - (a) Turn unit on.
 - (b) Set temperature between 80 and 110 degrees F.
 - (c) Fill with a germicidal detergent that is low-sudsing, free rinsing, and low alkaline. Follow label dilution instructions.
 - (d) Follow the procedures contained in the Operating Manual for:

1) Amount of detergent needed.

2) Length of cleaning cycle.

3) Maintenance/cleaning of machine.

(e) At the beginning of the A.M. watch, run the ultrasonic cleaner through one complete cycle before loading with instruments. This will remove any gases that may have formed in the cleaning solution. Gases will reduce sonic energy and reduce cleaning.

(f) Completely immerse the wire basket/instrument tray in the sonic solution.

4. Run the ultrasonic cleaner through a complete cycle.

5. Rinse instruments thoroughly with distilled water. Tap water will cause the instruments to rust and corrode.

6. Lubricate instruments in a milk bath tray with water-soluble lubricant. The ultrasonic cleaner removes all lubricant and thus may damage instruments. Do not use machine oils, mineral oil, and silicon as lubricants. These leave residues that stress box locks and prevent steam penetration to all surface areas during sterilization.

7. Air-dry instruments thoroughly before sterilizing.

F. RESPONSIBILITY:

CSR Decontamination Technologist.

TAB C-4

MAINTENANCE AND CLEANING OF CSR EQUIPMENT

A. **PURPOSE:** To test for proper function and defects, to prolong usefulness of equipment and to prevent the spread of pathogens.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Basins.
2. Scrub brushes.
3. Wipes.
4. Detergent, GP.
5. Germicidal solution.
6. Equipment/Materials Log.

D. **CRITERIA:**

1. All equipment will be completely functional.
2. All equipment will be free of pathogens.

E. **STEPS:**

1. All minor equipment obtained from CSR must be returned to CSR to be tested, inspected, and cleaned.
2. Any defective equipment will be sent to Medical Repair by CSR.
3. All cleaning will be done outside the CSR Modules in TEMPER tent area.
 - (a) CSR Support Module will maintain equipment not used by the Operating Room.
 - (b) The CSR Collection Technologist in the Operating Room Support Area will maintain all minor equipment used by the Operating Room.
4. Cleaning procedures for minor equipment.
 - (a) Aquamatic heating pad K-model.
 - 1) Prepare germicidal solution.

- 2) Empty Pierys reservoir.
- 3) Wipe reservoir using germicidal solution.
- 4) Replace disposable pads if used.

(b) Volumetric infusion pump.

- 1) Prepare germicidal solution.
- 2) Clean the outer casing and electrical cords using a cloth dampened in solution.
- 3) Do not introduce any solution into the plunger shuttle or internal mechanisms.
- 3) Using a cotton tipped applicator, clean soiled air in line detector.

(c) Anatrol volumetric controller.

- 1) Prepare germicidal solution.
- 2) Wipe down machine with dampened cloth.
- 3) Check batteries. Replace spent batteries with four, size "C" batteries.

(d) Portable suction machines.

- 1) Prepare germicidal solution.
- 2) Wipe down machine with dampened cloth.
- 3) Wipe all wheels.

5. Medical Repair will maintain and calibrate all major CSR equipment in accordance with the Operational Maintenance Plan.

(a) Medical Repair will record all maintenance performed.

(b) Corrective maintenance requirements will be reported IAW Chapter 15.

F. RESPONSIBILITY:

1. CSR Collection Technologist.

TAB C-5

RUBBER GOODS

A. **PURPOSE:** To prepare rubber for sterilization to ensure that it will remain patent and functional.

B. **DEFINITION:** Rubber goods are any materials made out of rubber or synthetic material that are hollow in the center.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Distilled water.
2. Rubber goods.

D. **CRITERIA:**

Rubber tubing must remain patent after sterilization.

E. **STEPS:**

1. Clean rubber goods with germicidal disinfectant, and allow to air dry.
2. Moisten interior surfaces of rubber tubing and bulbs with distilled water prior to packing for sterilization.
3. Group components together, test for fit/completeness, disassemble, and pre-wrap together in a single wrap of gauze, sponge, or small wrapper.
4. Separate rubber components from other items by wrap or gauze.

F. **RESPONSIBILITY:**

CSR Decontamination Technologist.

TAB C-6

INSTRUMENT TRAY ASSEMBLY

- A. **PURPOSE:** To make all the common instruments and supplies needed for a procedure available on one tray.
- B. **DEFINITION:** Instrument tray consists of surgical instruments, glassware, linens that are sterilized together in one package.
- C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**
1. Assembly card list of tray contents.
 2. Metal trays.
 3. Instruments.
 4. Chemical indicator strips.
 5. Linens.
 6. Other supplies.
- D. **CRITERIA:**
1. Contents of tray match label/assembly card.
 2. Contents are placed in sequence of use.
 3. Maximum weight of an assembled tray is 16 pounds.
- E. **STEPS:**
1. Obtain an assembly card for the instrument tray. See enclosure A.
 2. Collect all instruments needed for the tray.
 - (a) Inspect for cleanliness. If unclear, return to decontamination.
 - (b) Inspect for defects. If damaged, set aside for Medical Repair.
 - (c) Inspect for proper function.
 - 1) Hinged instruments - joints should work smoothly, teeth fit together, and ratchet springs function.
 - 2) Cutting edge instruments - check for sharpness, chips, and dents.

3) Malleable instruments - check for bends, dents. Normally flat and smooth.

4) Multi-part instruments - Assemble to ensure completeness.

(d) Ensure tray is complete. Notify CSR Supply Technologist of any instruments needed. Missing items must be noted on the tray label.

3. Collect all other supplies needed on the tray.

4. Prepare tray.

(a) Use stainless steel perforated bottom trays large enough to contain all items, (solid bottom trays are not recommended because steam cannot completely penetrate all surfaces).

(b) Cover bottom of tray with small muslin wrapper.

(c) Arrange articles on tray according to weight, sequence of use, and in a manner that will permit steam to contact all surfaces.

1) Place heavy instruments and retractors on the bottom.

2) Place concave surfaces downward.

3) Open all hinged instruments and place on pins or stringers.

4) Disassemble multi-part instruments.

5) Pad points of sharp instruments with gauze to protect against puncture of package. (Must be done for plastic peel packs).

6) Place delicate instruments on top.

(d) Use pre-packaged sterile scalpel blades and needles. Do not attach to handles or holders.

(e) Fan fold several towels IAW assembly card and place on the tray in positions to protect and keep the instruments in place.

(f) Place a chemical indicator strip in the center of each tray. Fold strip if necessary to ensure that it is centered.

F. RESPONSIBILITY:

CSR Sterile Processing Technologist (Since the Tech must be very familiar with all instruments on trays, it is imperative that at least one tech per watch be an OR Tech).

TRAY ASSEMBLY CARD

Format

Title of Instrument Tray

-

A. Instruments:

| # | Name | # | Name |
|---|------|---|------|
|---|------|---|------|

B. Glassware:

| # | Name |
|---|------|
|---|------|

C. Linens:

| # | Name |
|---|------|
|---|------|

D. Others:

| # | Name |
|---|------|
|---|------|

-

5 X 8" Card

Enclosure A

TAB C-7

PACKAGING

- A. **PURPOSE:** To properly wrap trays/linens for resterilization in a steam autoclave.
- B. **DEFINITION:** Packaging is the procedure by which wrappers are supplied around tray items to secure the items yet permit handling without contamination.
- C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**
1. Wrappers, muslin.
 2. Autoclave pressure sensitive tape.
 3. Plastic dust cover roll.
 4. Heat sealer machine.
 5. Label gun/labels.
- D. **CRITERIA:**
1. Packaging must permit handling without contaminating sterile contents.
 2. Linen packages may be no larger than 12"x12"x20" and weigh no more than 12 pounds.
 3. Instrument tray packages may not exceed 16 pounds.
 4. Once processed, items will be considered sterile for a period not to exceed six months when stored in a controlled environment and wrapped in a heat sealed plastic dust cover.
 5. Trays or basins used to hold instruments must have holes in bottom to prevent water condensation. See TAB C-6.E.4.a.
- E. **STEPS:**
1. Double wrap sequentially all trays and linens.
 - (a) Use freshly laundered linen with a 140 mesh thread count that has 3 or less patched holes per item. Linen may only be mended by iron-on patches, not stitching. An alternative is high-grade quality disposable wrapper (i.e., 100% polypropylene, kim guard).

(b) Use standard envelope or square folding techniques. All corners (envelope style) and sides (square style) are turned back so that an edge of material can be picked up without contaminating contents. This also makes opening the package easier.

(c) Fold linen tight enough to exclude dust and vermin but loose enough for steam penetration. Excessively tight packaging will increase density; excessively loose packaging will slow sterilization.

2. Securely fasten package with appropriate pressure sensitive tape. Never use staples, paper clips, or safety pins to fasten a package.

3. Label all packages in an easily visible location.

(a) Use a laundry marking pencil because the markings will be removed by laundering.

(b) Label contents.

(1) Handwritten label.

- Name of tray.
- Items included.
- List of missing instruments/items.

(2) Gun label - load control number.

- Julianne date.
- Sterilizer number.
- Cycle number.
- Expiration date.

(3) If no gun label available, place number of autoclave that package was sterilized in, Julianne date, and load number on pressure sensitive tape.

4. Limit the size and density of all packages to minimize "wet pack" problems.

(a) Linen packs must not be larger than 12"x12"x20" and weigh not more than 12 pounds. Density must not exceed 7.2 pounds per cubic foot.

1) Formula to calculate density is:

Size in inches = Cubic feet of pack

1728

Weight of pack in pounds = Density of lbs per cubic foot

Cubic feet of pack

(b) Wrapped instrument sets must not exceed 16 pounds in weight.

5. Dust covers - 2-3 mil thick plastic

(a) Place plastic outer covers over sterile wrappers to increase protection and extend expiration date from 30 days to 6 months.

(b) Cool and dry sterile packages before the dust cover is applied to prevent condensation on cold surfaces, wetting the wrappers, and contaminating the contents.

(c) Two persons are needed to apply dust covers.

1) Must wear gloves, masks.

2) Cut enough plastic from roll to cover the package.

3) Place trays into folded plastic.

4) Place a desiccant inside the dust cover but outside the exterior wrapper to control condensation.

5) Heat seal the dust cover using the heat sealer.

6) Clearly mark the dust cover so it will not be considered a sterile field.

7) Label dust cover with a 6-month expiration date versus the 30-day date on inside wrapper.

F. RESPONSIBILITY:

CSR Sterile Processing Technologist.

G. SPECIAL NOTE:

1. Handle any sterile wrapped package as little as possible to maintain sterility.

2. Use only fresh linens in packs to prevent superheating and deterioration.

TAB C-8

MONITORING STEAM STERILIZERS

A. **PURPOSE:** To validate that the autoclave is operating properly, the sterilization cycle was correctly run, and all malfunctions are detected immediately.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Chemical indicator strips.
2. Biological spore capsules.
3. Records.
4. CSR Daily Log.
5. Autoclave Daily Record.
6. Rapid Read Machine

D. **CRITERIA:**

1. An autoclave will be considered safe and fully operational when all gauges are correctly calibrated, chemical indicator strips and external pressure tape change color after processing and biological spore cultures are negative.
2. Any autoclave malfunction will be reported promptly to OR Supervisor, properly recorded and initialed. Medical Repair Department will be notified immediately.

E. **TYPES OF MONITORING DONE:**

1. Mechanical.
 - (a) Check gauges and readings to validate correct calibrations.
 - (b) "Bowie Dick" Air Leak Test - Not required on Field Steam Sterilizer, Model #6530-00-926-2151. Leveling not required for operation. (REF AR 40-19).
2. Chemical.
 - (a) Internal indicator strip - monitors temperature, time, moisture exposure on internal parts of package.

(b) External autoclave tape - indicates steam exposure only.

3. Biological. Validates that microbial spores have been killed.

Use liquid self-contained capsules (Attest) for routine cycle steam sterilizer (contains *Bacillus Stearothermophilus*).

F. **STEPS:**

1. Mechanical monitoring.

(a) Verify entries in logs/records.

(b) Check each Sterilizer Maintenance Record for pressure and temperature gauge calibration checks.

(c) Check Autoclave Daily Record.

1) Records are dated and changed daily.

2) Entries are made for each Autoclave load run (initials, temperature, pressure readings).

(d) Check CSR Daily Log. Abnormal findings are recorded, initialed, and time noted when OR Supervisor and Medical Repair Department were notified.

2. Chemical monitoring.

(a) Internal chemical indicator strips.

1) If autoclave was secured, must run an empty load to heat up machine.

2) Run a test pack in the second Autoclave load on the A.M. watch. Only done if autoclave secured or an abnormal indicator was found.

3) Test pack requires:

a. 1 Chemical steam indicator strip.

b. 1 Metal tray.

c. 40 4x8 gauge.

d. 1 Muslin eye sheet.

e. 2 24x24 muslin drapes.

f. 2 140 mesh muslin wrappers (double thickness).

- 4) Prepare the test pack.
 - a. Initial the indicator strip with pencil.
 - b. Place strip in middle of test pack.
 - c. Place test pack on edge in bottom/front of the sterilizer.
- 5) Remove indicator strip from pack after autoclaving and interpret.

Standards for interpretation:

Normal - color changes.

Abnormal - no color changes.

- 6) Place chemical indicator strip on Autoclave Daily Record.

- 7) Refer to Section F if interpretation is abnormal.

(b) External steam autoclave pressure sensitive tape.

- 1) Ensure that each pack has proper tape and label indicating name of item, inventory list, load control number (Julienne date, sterilizer number, cycle number), and expiration date.

- 2) Interpret the tape color.

Normal - color changes (lines darken).

Abnormal - no color change.

- 3) If reading is abnormal, repeat the autoclave cycle. If still abnormal, the autoclave is malfunctioning. Refer to Section F - General Actions a-d for further action.

3. Biological monitoring - spore capsules.

- (a) Run a test pack in the first autoclave load on the Monday A.M. watch. Runs may be done more frequently.

(b) Test pack requires:

- (1) 2 Biological spore indicators.

- (2) 1 Internal chemical indicator strip.

- (3) 2 Wrap around muslin surgical gowns.

- (4) 12 Towels.

- (5) 1 Drape.

- (6) 1 Metal tray.

(7) 2 140-thread count muslin wrappers (double thickness).

(c) Prepare the test pack.

(1) Place biological capsules in middle of pack.

(2) Initial the chemical indicator strip and place it on a towel above or below the biological indicator capsule.

(3) Place test pack on edge in the bottom, front of the sterilizer.

(d) Autoclave the test pack and remove the capsules.

(1) Incubate capsules in accordance with manufacture's instructions.

(2) When using Attest: Gravity = 1 hour read; Prevac = 3 hour read.

(e) Interpret test results after incubation period.

(1) Normal (negative for spores) = no color change.

(2) Abnormal (positive for spores) = color change.

(f) After 1 or 3 hours, record test results on the Autoclave Daily Sterilization Record.

(g) Refer to Section F if results are abnormal.

G. ABNORMAL TEST PROCEDURES:

1. General.

(a) Immediately notify OR Supervisor of any malfunction or abnormal test result. In the CSR Daily Log, record time Supervisor was notified and initial entry.

(b) Record the abnormal finding in Sterilization Log, CSR Daily Log and Autoclave Daily Sterilization Record.

(c) Secure the suspect autoclave.

(d) Notify Medical Repair Division via CSR Supply Technologist.

2. Specific actions.

A. Abnormal chemical indicator readings in test pack run on first autoclave load.

(1) Place strip in Autoclave Daily Sterilizer Record. Record abnormal result in Autoclave Daily Sterilizer Record and in Sterilizer Log.

- (2) Repeat the test.
 - a) Reassemble a test pack using fresh linen and a new indicator strip.
- (3) Check chemical indicator strip after sterilization cycle is completed. If still abnormal, refer to TAB F-2; General Actions a-d.
- (4) Reprocess any other packs run in the same autoclave load.
- B. Abnormal chemical indicator readings in sterile packages.
 - (1) The sterile pack opener must always inspect the chemical indicator strip to verify it has changed color.
 - (2) If strip is abnormal, it must be returned to CSR along with all package contents.
 - (3) The CSR Sterile Processing Technologist must notify the OR Supervisor and locate, in the Sterilization Log under the load control number, other packages prepared in the same load.
 - (4) Recall other packages processed in that load.
 - (5) Examine the chemical indicators and if abnormal, refer to TAB F-2; General Action steps b-d.
 - (6) If other chemical indicators have changed color, autoclave may be certified to be functioning properly.
- C. Abnormal biological spore test.
 - (1) Incubate AMSCO/ATTEST biological spore capsule in rapid read incubator. Takes 3 hours for final results.
 - a) Log all culture reports in CSR Sterilization Log, CSR Daily Log, and on appropriate Autoclave Daily Sterilization Record.
 - (2) Whenever an abnormal test is reported, complete the following:
 - a. Repeat spore testing in suspect autoclave.
 - b. Place test pack inside with additional capsules placed throughout autoclave.
 - c. Deliver all capsules to laboratory for incubation.
 - d. Secure the autoclave until negative spore culture report is received.
 - e. Follow general action steps a-d.

f. Initiate the recall procedure for sterilized items IAW the SOP on "Recall of Sterile Items," TAB C-11.

H. **RESPONSIBILITY:**

CSR Sterile Processing Technologist.

TAB C-9

LOADING OF STEAM AUTOCLAVE

- A. **PURPOSE:** To load packages properly to allow full steam penetration.
- B. **DEFINITION:** N/A.
- C. **EQUIPMENT, SUPPLIES AND FORMS REQUIRED:**
1. Steam autoclave.
 2. Packages for sterilization.
- D. **CRITERIA:**
1. Field autoclave internal chamber is 16" in diameter, 36" long, has 4 shelf levels, the top three shelves are adjustable.
 - (a) Normal load = 2 major trays if inserted flat or more small items if tilted.
 2. Items must be placed on shelves at 45-degree angle or flat with spacing between packs to allow for steam penetration.
 3. Place packages so they will not drain on top of other packages.
- E. **STEPS:**
1. Load metal items, basins, trays in bottom of autoclave to prevent them from dripping on other packages.
 - (a) Instrument sets in mesh bottom trays must be placed flat.
 - (b) Instrument sets on solid bottom trays must be tilted on edge.
 2. Single instruments packaged in plastic-paper pouches must be placed on edge, upright, or plastic side facing down.
 3. Tilt jars and other non-porous containers at a 45-degree angle.
 4. Small items may be crisscrossed.
 5. Place linen packages on top shelf to prevent other packs from dripping onto them.
- F. **RESPONSIBILITY:**
CSR Sterile Processing Technologist.

G. **SPECIAL CONSIDERATIONS:**

Place test packs on front of bottom shelf in sterilizer.

TAB C-10

COLD CHEMICAL STERILIZATION/HIGH LEVEL DISINFECTION

A. **PURPOSE:** Cold sterilization is performed on items that cannot be steam autoclaved. Examples include face masks, resuscitation bags, anesthesia equipment, and tubes.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Five gallon bucket with removable draining basket.
2. Glutaraldehyde 2%.
3. Gloves.

D. **CRITERIA:**

Items are free from pathogens.

E. **STEPS:**

1. Prepare germicidal soaking solution.
2. Disassemble all parts, wash and rinse thoroughly.
3. Rough dry equipment.
4. Immerse equipment in basket and soak at least 3 hours with optimum of 10 hours. For high-level disinfection, follow manufacturer's guidelines.
5. Rinse equipment using copious quantities of sterile water.
6. Allow to air dry.

F. **RESPONSIBILITY:**

CSR Decontamination Technologist.

G. **PRECAUTIONS:**

1. Avoid eye contact.
 - (a) In case of contact, flush with water immediately.
 - (b) Notify OR Supervisor and seek medical attention.
2. Avoid skin contact -- skin irritation, though infrequent, can occur.

(a) Wear gloves to minimize contact.

(b) Rinse affected area thoroughly with water.

3. Potential hazard of toxic vapors from glutaraldehyde in small enclosed areas.

TAB C-11

RECALL OF STERILE ITEMS

- A. **PURPOSE:** To ensure all stored sterile items may be safely used.
- B. **DEFINITIONS:** N/A.
- C. **CRITERIA:**
1. Packs placed in a heat sealed dust cover immediately after cooling have a shelf life of 6 months.
 2. All packs wrapped in muslin wrappers, over wrapped with paper, have a shelf life of 3 months.
 3. All packs will be recalled when a positive spore report on any sterilizer is received from the laboratory.
- D. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**
1. Memorandum form.
 2. CSR Sterilizer Log.
- E. **STEPS:**
1. Expired sterile supplies.
 - (a) Verify expiration date on label on any sterile item prior to use. If expired, return to CSR for reprocessing.
 - (b) Inspect storage areas weekly for expired packs.
 - (c) Rotate sterile items on shelves to ensure items sterilized first are used first. Sterile items are stocked to the left and pulled from the right.
 2. Recalled sterile supplies.
 - (a) A recall is necessary whenever an abnormal spore culture report is received.
 - (b) Recall is initiated by the OR Supervisor by memorandum to other hospital areas to which the suspect items have been issued. Suspect items can be identified by entries in the CSR Sterilizer Log/Autoclave Daily Record Sheets.
 - (c) To recall suspect packs, first obtain the load control number, initiate autoclave daily record sheet, then pull all packs labeled with that control number.

(d) Recalled items must be returned to CSR, logged in the CSR Sterilizer Log, and reprocessed.

(e) If any of the recalled items have been used, the OR Supervisor must notify the Infection Control Nurse.

(f) The OR Supervisor must submit a follow-up report that reflects final disposition of all suspect items. If any suspect items were used prior to recall, a list of patients and their attending physicians must be included.

3. Reprocessing of Sterile Items

(a) Disassemble all trays.

(b) Replace all linens with fresh linens.

(c) Replace internal chemical indicator strips.

(d) Repackage.

(e) Label with a new label.

(f) Sterilize and prepare for sterile storage.

F. **RESPONSIBILITY:**

1. Operating Room: CSR Collection Technologist.

2. Other hospital areas: Senior Corpsman or designated representative for area.

TAB C-12

PROCEDURE FOR PICK-UP AND DELIVERY OF HOSPITAL LAUNDRY

A. **PURPOSE**: It will be logistically impossible to pick up and deliver laundry at each individual ward and CSR. Therefore, this procedure establishes central collection points and the methodology for preparing laundry for turn-in.

B. **DEFINITIONS**: N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED**:

1. Canvas laundry bags.
2. Request for clean linen/laundry.

D. **CRITERIA**: N/A.

E. **STEPS**:

1. Designated Laundry Petty Officer will:
 - (a) Set up laundry bags, tagging one for bed linen, one for clothing (including patient clothing), and one for contaminated laundry.
 - (b) Daily at 0800, take the soiled laundry to the nearest Clinical Work Space along with a request for the next day's linen/laundry supply.
 - (c) Distribute cleaned patient clothing.

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TAB D

STANDARDS AND JOB DESCRIPTIONS INDEX

| <u>NUMBER</u> | <u>TITLE</u> | <u>PAGE</u> |
|---------------|--|-------------|
| D-1 | CSR Evaluation Standards | 47 |
| D-2 | Potential Errors in Operating Steam Autoclaves | 48 |
| D-3 | CSR Cleaning Schedule | 49 |

TAB D-1

CSR EVALUATIVE STANDARDS

1. All items to be sterilized will be inspected to ensure they are clean and free of pathogens prior to packaging.
2. Items for sterilization shall be prepared in a clean environment (inside ISO container).
3. Only fresh laundered linens will be used.
4. Surgical linen packs will not exceed 12 lbs. or dimensions of 12"x12"x20".
5. Assembled instrument trays will not exceed 16 lbs.
6. All items sterilized in CSR will be inventoried, properly identified, and labeled.
7. All sterilized items packaged to exceed 28 calendar days will be in heat sealed plastic dust covers for 6 months.
8. All items stored on wire carts shall be placed 10" above the floor, 18" from the ceiling and 2" from the TEMPER tent wall.
9. All gauges (pressure and temperature) on the autoclaves will be calibrated every 6 months.
10. The sterilizers shall be monitored weekly with a biological control system.
11. Items received sterile from the manufacturer are considered sterile as long as the package is not damaged, punctured, or soiled in any way. If the date has expired, or any of the aforementioned indications are evident, an item should be considered unsterile.
12. Upon notice of product recall, all suspect supplies will be immediately removed from CSR stock, and from areas supplied by CSR. After all items are retrieved, they will be returned to medical supply or destroyed, according to instructions.

TAB D-2

POTENTIAL ERRORS IN OPERATING STEAM AUTOCLAVES

1. Failure to observe and understand procedures of sterilization equipment.
2. Lack of basic knowledge concerning principles of operation and care of the sterilizer.
3. Assembling and wrapping supplies without regard for steam permeability.
4. Careless sterilizer loading.
5. Improper exposure periods.
6. Incorrect sequence of operation in the sterilization cycle.
7. Short cutting.
8. Attempting to sterilize materials which are impervious to steam.

TAB D-3

CSR CLEANING SCHEDULE

A. **PURPOSE:** To keep the environment as clean as possible.

B. **EQUIPMENT, SUPPLIES AND FORMS REQUIRED:**

1. 4 Scrub basins/buckets.

2. Gloves.

3. Wet vacuum.

4. Sponge mop.

5. Wipes.

6. Detergent, GP.

7. Germicidal solution.

8. Isopropyl alcohol 70%.

9. CSR Daily Log.

C. **CRITERIA:**

1. Counter tops in modules are wiped each watch.

2. Trash and soiled linen are removed each watch.

3. Shelves are dusted daily.

4. Decks are wet-vacuumed daily.

5. Autoclave interior chambers are cleaned daily.

6. ISO-container bulkheads and overheads are cleaned weekly.

D. **STEPS:**

1. Daily cleaning schedule for CSR:

(a) At the start of each watch, wipe down all work tables in CSR Modules with isopropyl alcohol 70%.

(b) Remove soiled linen and trash receptacles as filled and at the end of each watch.

(c) Dust all shelves during each night watch.

(d) Wash and wet-vac deck in CSR Modules during each night watch.

2. Weekly cleaning for CSR.

(a) Wash down ISO-container bulkheads and overheads with germicidal detergent.

(b) Damp-dust all storage shelving in Operating Room support space.

(c) Wash decks with wet-vac using germicidal detergent.

(d) Change vent covers to ISO containers.

3. Daily cleaning of autoclaves. (Night Watch cleaning procedures).

Night watch cleaning procedure:

(a) Secure steam to autoclaves.

(b) Open door wide to allow cooling.

(c) Mix a solution of calgonite/or other detergent in a large basin. Follow dilution directions on box.

(d) Scrub all surfaces of interior chamber with a hand brush soaked in solution.

(e) Rinse all surfaces thoroughly using clean water and a clean brush.

(f) Return all cleaning materials to decontamination area for cleaning and reprocessing.

4. Weekly cleaning of autoclaves.

(a) Remove chamber drain strainer. Clean out lime and sediment and reverse flush under water.

(b) Pour full strength germicidal solution into drain. Wait 5 minutes and follow with hot tap water.

(c) Replace strainer in drain.

(d) Scrape salt (mineral deposits) from jacket interior using scraping device provided with unit.

(d) Wash exterior with detergent and water.

5. Log cleaning in the CSR Daily Log.

TAB E

REFERENCES INDEX

| <u>Number</u> | <u>Title</u> |
|---------------|--|
| F-1 | Centralized Material Service/Section; Field Manual |
| F-2 | Sterilizing Medical, Surgical, Dental, and Veterinary Material |

J. RESPONSE TO DEPLOYMENT HAZARDS

1. FIRE PROCEDURES

- **Initially, attempt to extinguish a fire with a portable fire extinguisher ONLY IF THE FIRE IS CONTAINED.**
- Simultaneously, the Functional Area (FA) needs to IMMEDIATELY contact ADMIN either by phone or runner/messenger. ADMIN WILL SOUND THE ALARM FOR FIRE.
- Smoke boundaries need to be set by the FA staff by dropping the TEMPER liner flaps leading to the FA and vestibules(s). All flaps throughout the hospital need to be dropped to control the possible flow of smoke.
- The FA Leader will decide to evacuate the space if the fire is determined to be out of control.
- All O2 cylinders (on a cart) positioned in each appropriate FA need to be removed when the space is evacuated.
- A FA staff member should be assigned in each area to secure the electrical (C-panel) and HVAC units.
- A muster of all staff and patients within the affected FA needs to be taken immediately and sent to ADMIN by runner.
- The FA Leader needs to wait at the FA access point for the Fire Marshall and Fire Team to arrive in order to report: type of fire, volatile items in the space (O2 cylinders, HAZMAT) and any casualties known to be in the space.
- When assessing the intensity of the fire, the Fire Marshall WILL DECIDE WHETHER OR NOT THE ADJACENT FUNCTIONAL AREA(S) WILL EVACUATE. Therefore, the FA on either side of the area of fire will wait for the word from the Fire Marshall before evacuating.
- Once the fire is out, there will be an inspection of the damaged area by the Fire Marshall, FA Leader and other key personnel.
- The Fire Marshall will give an assessment report to the Commanding Officer describing damages sustained by the FA. Depending on the outcome of the fire, the FA may need to relocate somewhere else until it

is fully functional again. The FA Leader needs to await orders from the Command Staff before reentering the FA and returning to duty.

2. CHEMICAL/ BIOLOGICAL ATTACK

- The hospital ADMIN department will notify the hospital compound, via 1MC, if there is a possibility of a biological/chemical attack.
- All areas of the compound must respond appropriately
- Once the alarm has been sounded for biological/chemical attack, **THE INITIAL ACTION TAKEN IS TO DON AND CLEAR YOUR GAS MASK.** Since the fleet hospital is operational, sleeves should always be down. **The donning and clearing of the gas mask should be accomplished in a total of 8 seconds.**
- If a MOPP level is required, the ADMIN department will announce that accordingly and everyone will proceed to MOPP Level 4. **This task must be accomplished within 8 minutes.**
- Once Personal MOPP gear is on, place gas masks on your patients.
- One person from each FA should be assigned to secure the HVAC unit (to prevent gas from entering FA). **DO NOT DROP THE FLAPS IN THE HOSPITAL! The designated person should NOT reenter the hospital but should proceed to the EOD/Decontamination bunker.**
- A muster of all FA staff and patients needs to be taken immediately and sent to ADMIN.
- **Drink water!! Hydration, hydration, hydration.**
- **The ALL CLEAR will be announced by ADMIN over the 1MC.**

3. AIR RAID PROCEDURES

- Once the alarm has been sounded for air attack, THE INITIAL ACTION TAKEN IS TO EVACUATE ALL FA STAFF AND PATIENTS TO THE BUNKERS. The entire compound must evacuate to appropriate bunkers including living spaces/GPL's and the COMMZ
- Conduct an accurate muster of all staff personnel and patients immediately and submit it to the ADMIN bunker.
- Be sure to bring all gear including canteens since mustering may require everyone to be standing outside for long periods of time.
- It's not necessary to secure C-panel or HVAC during an air raid drill. Evacuate to bunkers ASAP.
- When announced over the 1MC, each FA must send in two junior personnel to search and sweep high, medium and low on both sides of the FA to check for bombs. All other personnel will stay outside in bunkers until area is cleared. The All Clear will be announced over the 1MC.
- MISCELLANEOUS ITEMS
- Each FA should denote a supply petty officer who is responsible for equipment inventory/high-tech gear checkout. If supplies are needed, submit a request to the student SK's/supply department for issue. The student SK's will request supplies from FHOTC supply if NIS.
- If trouble arises with HVAC or C-panel (electrical power), submit a work request to the student Public Works department. Both the HVAC and C-panel operations remain off-limits to students other than Seabees.
- Rear doors to FA are to be used only as evacuation routes or for patient flow during peak flow ONLY. There are only two ways to enter the hospital...either on foot by the ADMIN temper or through CAS REC via litter.
- Each FA needs to have a logbook or similar system in order to keep track of all staff and patients within the compound. Each time a staff member or patient leaves the FA, he/she must be logged out (time, location) and then logged back in when he/she returns. This will assist with accuracy when conducting musters.

K. PATIENT PROCEDURES FOR HANDLING ENEMY PRISONERS OF WAR

A. **PURPOSE:** To detail patient handling procedures for enemy prisoners of war within the fleet hospital.

B. **DEFINTION:**

Enemy prisoners of war (EPW) – those who require treatment who are prisoners of U.S. or allied combat forces.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Restraints (theater command military police or hospital issue).
2. Others as specified in admission procedures (all forms will be marked with the words "Prisoner of War" or "EPW").

D. **STEPS:**

1. Upon presentation of EPW to functional area, notify the Security Department and Patient Admin.
2. Upon admission to Casualty Receiving, Security will be responsible for the following notifications:
 - (a) **Theater command military police (MP) headquarters.**
 - (b) **Executive Officer.**
 - (c) **Director of Nursing.**
 - (d) **Director of Administration.**
3. Perform essential life saving care.
4. Inform MP that hospital staff will not assume custody of patient, and that MP will retain custody of EPW until relieved by appropriate MP headquarters staff or patient is transferred to EPW holding center (external to hospital).
5. After treatment, have corpsman or litter bearer escort MP and EPW to next functional area charge nurse. A correctly annotated admissions packet will be delivered by hand to the charge nurse.

6. During course of treatment, patient will be guarded by MP and/or restrained until treatment is terminated.
7. Movement to another functional area will be reported to Security.
8. EPW's will be fed either on the ward or in the general mess. If allowed to eat in the general mess, EPW's will be accompanied by MP guards.

E. RESPONSIBILITY:

CMAA/Security.